



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

it by Prof. Tuckerman. The peculiarity of this plant is that it is of sub-tropical origin, and might be allied to *G. pumentaria*, or to *G. reniforme*, of Fee. Occurs at Jacksonville on *Persea*. Lich. Florida, p. 8, No. 231. Eckfeldt and Calkins.

GRAPHIS SUBVIRGNALIS, Nyl. spec. nova (e stirpe *G. pumentariae*).

Sat similis *G. Virgineæ* et quoque thallo k e flavo ferruginee rufescente, sed sporæ oblongæ, 4-8 næ indistincte (seriibus fere 14) murali-divisæ, long. 0,030-38, crass. 0,007-0,012 mm. Iodo non tinctæ.

Associated on the same substrata with *Arthonia albovirescens*, but quite an infrequent species. Lich. Florida, p. 8, No. 233, under the name *G. subvirginea*. Eckfeldt and Calkins.

HEPPIA OMPHALIZA, Nyl. spec. nova (*Endocarpiscum*.)

Thallus castaneo-fuscus vel castaneo-nigricans, granulosus, granulis firilibus squamulas sistentibus omphalariiforme rotundatas (latit. cerciter 1 mm.), convexulas, subtus pallescentes umbilicato-effixas; apothecia immersa endocarpodea pallida (latit. circ. 01 mm) thecæ polysporæ sporæ oblongæ (long. 0,006-8, crass. 0,0035 mm.). Iodo thecæ cærulescentes, dein fulvescentes. Granula thalli minora spermogonia continent.

First collected in the summer of 1877 by Mr. Edward Palmer on granite rocks on the Islands of San Pedro Martin in the Gulf of California. Alt. 1,200 ft.

Contributions to American Bryology.—I.

BY ELIZABETH G. BRITTON.

AN ENUMERATION OF MOSSES COLLECTED BY MR. JOHN B. LEIBERG, IN KOOTENAI CO., IDAHO.*

(Plate XCI).

Sphagnum squarrosum, Pers. North Fork Basin, Lake Cœur d'Alene (84).

Sphagnum teres, Angstr. Lake Pend d'Oreille (45).

Mollia æruginosa (Smith), Lindb. (*Gymnostomum rupestre*, Schwægr). In spray of waterfall, Lake Pend d'Oreille (45).

Dichodontium pellucidum (L.), Schimp. North Fork Basin, Lake Cœur d'Alene (80).

*Where no locality is given, the vicinity of Lake Pend d'Oreille is to be understood.

- Anisothecium Grevillei* (Br. & Sch.) Lindb. (*Dicranella Grevilleana*, Schimp). Springy places, Lake Pend d'Oreille, (44).
Dicranum scoparium (L.), Hedw. (42 and 47).
Dicranum fuscescens, Turn. Same locality (15).
Dicranum strictum, Schleich. On decaying logs, same locality (22).
Fissidens rufulus, Br. & Sch. (*F. ventricosus*, Lesq). Sterile on submerged rocks, same locality (61 in part).
Fissidens grandifrons, Brid. Granite ledges in swift mountain streams, sterile (63).
Fissidens bryoides, Hedw. North Fork Basin, Lake Cœur d'Alene (68 and 91).
Conomitrium Hallianum, Sull. & Lesq. On rocks at low-water line, Lake Pend d'Oreille, sterile (120).
Ceratodon purpureus (L.), Brid. (139).
Swarizia montana (Lamk.), Lindb. (*Distichium capillaceum*, Br. & Sch). North Fork Basin, Lake Cœur d'Alene (124).
Tortula pusilla (Hedw.) Mitt. (*Pottia cavifolia*, Ehrh.) Mixed with *Bryum argenteum*, var. *lanatum* (32).
Tortula princeps, De Not. (*Barbula Muelleri*, Br. & Sch.) (145).
Barbula unguiculata (Huds.) Hedw. One of the forms. (48).
Barbula subfallax, Muell. ? On decaying logs (52 and 96); around waterfalls (95).
Scouleria aquatica, Hook. (*Grimmia Scouleri*, Muell.) With *Fissidens rufulus*, on submerged rocks sterile (61 in part).
Leersia extinctoria (L.), Leyss., var. *obtusifolia* (Funck), Braithw. (*Encalypta vulgaris*, Hedw. var. *obtusa*, Schimp.) Alpine regions, on the ground (33).
Leersia rhabdocarpa (Schwægr.), Lindb. (*Encalypta rhabdocarpa*, Schwægr.) (153).
Leersia laciniata, Hedw. (*E. ciliata*, Hedw.) Mixed with small form of *Bartramia pomiformis* (153 in part).
Grimmia apocarpa (L.), Hedw. var. *gracilis* (Schleich.), Web. & Mohr (4).
Grimmia anodon, Br. & Sch. (31).
Grimmia torquata, Hornsch. (Plate XCI.) Fertile, on granite ledges about Lake Pend d'Oreille (20). Plants compared with Drummond's No. 58, Macoun's No. 91, and European

specimens. Basal areolation of the leaves less quadrate and more sinuous than figured by Dr. Braithwaite (British Moss Flora, ii. t. xlvii. E), but a specimen collected by him agrees with American specimens (see figs. a, b, 4 and 5). Capsule exerted on a slender, curved pedicel, 3 to 5 mm. long, erect and twisted when dry, less than 1 mm. long, prolate-spheroidal when young, cylindrical and ridged when old and brown; operculum with a long, straight beak, just covered with the brownish, mitrate calyptra; annulus none, peristome also lacking on the only specimen which still retained the operculum; perichætal leaves three, longer and stouter than the stem-leaves, with a short hyaline, serrulate point, twisted around the base of the pedicel when dry, erect-patent when moist.

Closely resembling *G. trichophylla*, Grev., but capsule smaller on a pedicel longer in proportion to its size, more closely twisted when dry; teeth not present on any of the old capsules. Dr. Braithwaite says, "short jointed filaments producing globose propagula at upper end, are frequent upon the leaves (l. c. 15, f. 10) these do not seem to be at all abundant upon American specimens, but appear rather as short, bifurcating, irregular filaments, than as moniliform hairs.

Grimmia pulvinata (L), Smith. Mixed with *G. trichophylla* (147 in part).

Grimmia pulvinata, var. *obtusa* (Brid.), Huebn. (3 in part).

Grimmia trichophylla, Grev. (3 in part, 147 in part).

Grimmia Donii, Smith. Spokane Falls, Washington (110).

Grimmia montana, Br. & Sch. Granite ledges (53).

Grimmia ovata, Web. & Mohr. (*G. commutata*, Huebn.), Lesq. & James, Manual, 145). (17).

Grimmia ovalis (Hedw.), Lindb. *G. ovata*, Lesq. & James, l. c. 143 not Web. & Mohr). (13).

Grimmia microcarpa (Gmel.), Lindb. *Rhacomitrium Sudeticum*, Br. & Sch. On gneissoid rocks, west of Lake Pend d'Oreille. (102 in part).

Grimmia heterosticha (Hedw.), C. Muell. (*R. heterostichum*, Brid.) (123).

Grimmia patens (Dicks.), Br. & Sch. (*R. patens*, Huebn., North Fork Basin, Lake Cœur d'Alene, mixed with 102). (127).

Grimmia acicularis (L.), C. Muell. *R. aciculare*, Brid.) In

- short, brownish-green, compact tufts, like Macoun's specimens from Yale, B. C. (19); also in loose, long, blackish-green bunches on gneissoid rocks, west of Lake Pend d'Oreille, mixed with *G. microcarpa*. (102 in part).
- Coscinodon cribrosus* (Hedw.), Spruce. (*C. pulvinatus*, Spreng.) ?
Teeth nearly entire on the only capsule found (35).
- Weissia Americana*, Lindb. (*Ulota Hutchinsiae*, Schimp.) (11).
- Orthotrichum Lævigatum*, Zett. ? (8).
- Orthotrichum Texanum*, Sull. Ledges, Lake Cœur d'Alene (133 in part); Lake Pend d'Oreille (60).
- Orthotrichum rupestre*, Schleich. Ledges, Lake Cœur d'Alene (134 in part); Lake Pend d'Oreille (37).
- Orthotrichum affine*, Schrad. On trees in woods (7, 11, 40 and 123 in part).
- Orthotrichum alpestre*, Hornsch. On trees (10).
- Orthotrichum speciosum*, Nees. On trees (152).
- O. elegans*, Schwægr., seems worthy of distinction, as Drummond's No. 155, and Mr. Leiberg's 9 and 152 in part are bright and green, with stems ferruginously tomentose, leaves more spreading, and other differences, for which see Venturi, Musc. Gall. 169, t. 46.
- Orthotrichum fallax*, Schimp. (159).
- Orthotrichum obtusifolium*, Schrad. On poplar trees, North Fork Basin (101). Specimens agree with Bryol. Europ. t. 208, and Lesq. and James Man. 177, but not with Venturi, Musc. Gall. 193, t. LII., but rather with *O. Rogeri*, Brid., Venturi, l. c. 186, t. 51.
- Hedwigia ciliata*, Ehrh. "Not common" (36).
- Braunia Californica*, Lesq. "Rather local" (103).
- Anæctangium Lapponicum*, Hedw. (*Amphoridium Lapponicum*, Schimp.) Precipices of the Chilco Range, south end of Lake Pend d'Oreille (89).
- Anæctangium Mougeotii* (Bruch.), Lindb. (*A. Mougeotii*, Schimp.) (76).
- Ptychomitrium Gardneri*, Lesq. (11 in part).
- Funaria hygrometrica* (L.), Sibth. North Fork Basin, Lake Cœur d'Alene (90); also a small set of plants too old for certain determination, alpine regions (34).

Bartramia pomiformis (L.), Hedw. var. *crispa*, Schimp. (112).

Also dwarf form of the species, agreeing with Labrador specimens collected by O. D. Allen (53 in part).

Philonotis fontana (L.), Brid. (35).

Philonotis calcarea, Schimp. ?? "In a calcareous spring, very rare" (49). Capsules too old for certain determination; may be *P. fontana*, var.

Pohlia nutans (Schreb.), Lindb. (*Webera nutans*, Hedw.) (74 mixed with 140).

Pohlia cruda (L.), Lindb. (*W. cruda*, Schimp.) North Fork Basin (136).

Leptobryum pyriforme (L.), Wils, (150).

Bryum argenteum, L., var. *lanatum* Br. & Sch. Alpine regions (32 in part).

Bryum caespiticium, L. Mixed with *Pohlia nutans* (140).

Astrophyllum medium (Br. & Sch.), Lindb. (*Mnium medium*, Br. & Sch.) North Fork Basin. (92).

Astrophyllum cuspidatum (L.), Lindb. (*M. affine*, Bland). (93). Also from North Fork Basin (94).

ASTROPHYLLUM SPINULOSUM (Br. & Sch.) (*M. spinulosum*, Br. & Sch.) (2).

Leucolepis acanthoneura (Schwægr.), Lindb. (*Mnium Menziesii*, C. Muell). (98).

Mnium androgynum, L. (*Aulacomnion androgynum*, Schwægr.) (43 mixed with 96).

Timmia Austriaca, Hedw. On rocks and earth (99 and 113).

CATHARINEA SELWYNI (Aust.) (*Atrichum Selwyni*, Aust. Bot. Gazette, ii. 95.) (21).

Polytrichum alpinum, L. (*Pogonatum alpinum*, Roehl). (142).

Polytrichum piliferum, Schreb. (110).

Polytrichum juniperinum, Willd. (115).

Buxbaumia aphylla, L. Decaying logs, Traill River basin, (not numbered).

Fontinalis antipyretica, L. "In mountain streams, fruiting abundantly." (114).

Fontinalis Lescurii, Sulliv. Granite Ledges in Lake Pend d'Oreille (137).

Dichelyma uncinata, Mitt.? Decaying logs, bushes and twigs, North Fork Basin (81). Sent to Kew for comparison with the type; perichæatial leaves are twisted!

Neckera Menziesii, Drummond. Granite ledges, fruiting abundantly with flagelliform branches (121). On trees and rocks at and below water-line, sterile (82).

Neckera Douglasii, Hook. On trees, sterile (83).

Antitrichia Californica, Sulliv. Granite ledges (18).

Climacium Americanum, Brid. Sterile (51).

Hypnum pseudo-sericeum, C. Muell. (29 in part).

Hypnum crispifolium, Hook. Along rivulets. (69); on the ground in woods (5).

Hypnum (Camptothecium) lutescens, Huds. (56 and 29 in part).

Hypnum æneum, Mitt. Typical (28).

Hypnum Nuttallii, Wils. (27 and 58).

Hypnum megaptilum, Sulliv. On the ground in damp woods, finer and more branching specimens than the type. (41).

Hypnum Stokesii, Turn. (65 and 69 in part).

HYPNUM (THAMNIUM) LEIBERGII, n. sp. North Fork Basin, Lake Cœur d'Alene, on quartzite ledges (78).

Dicæcious; perichæatial leaves ecostate with recurved apices, entire, or slightly serrulate; leaves costate to just below the apex, entire, or slightly serrulate below, coarsely serrate above; pedicel 1 cm. long, falling off with the capsules when old; inner peristome with three appendiculate regular cilia as long as the teeth, or occasionally irregularly united into one or two, and scarcely appendiculate.

Between *H. Alleghaniense*, Muell. and *H. neckeroides*, Hook, differing from the former in the dicæcious inflorescence and from the latter in the length of the cilia. Mr. Wright has kindly compared specimens sent him with the type of *H. neckeroides* at Kew, and confirms the above diagnosis.

Hypnum loreum, L. (84). Lake Cœur d'Alene.

Hypnum triquetrum, L. (97).

Hypnum splendens, Hedw. (100).

Hypnum uncinatum, Hedw. var. *plumosum*, Schimp. (131).

Hypnum robustum, Hook. Cañons and valleys in the Traill River Basin (not numbered).

Hypnum subimponens, Lesq. (129).

Hypnum aduncum, Hedw. var. *giganteum*, Br. & Sch. (88).

Description of Plate XCI.

Figs. 1-5, drawn from J. B. Leiberg's specimens.

Figs. a and b, drawn from Dr. Braithwaite's specimen.

Figs. a and 4, hyaline toothed apices of the leaves.

Figs. b and 5, elongated basal cells.

Fig. 3, Old, ridged capsule.

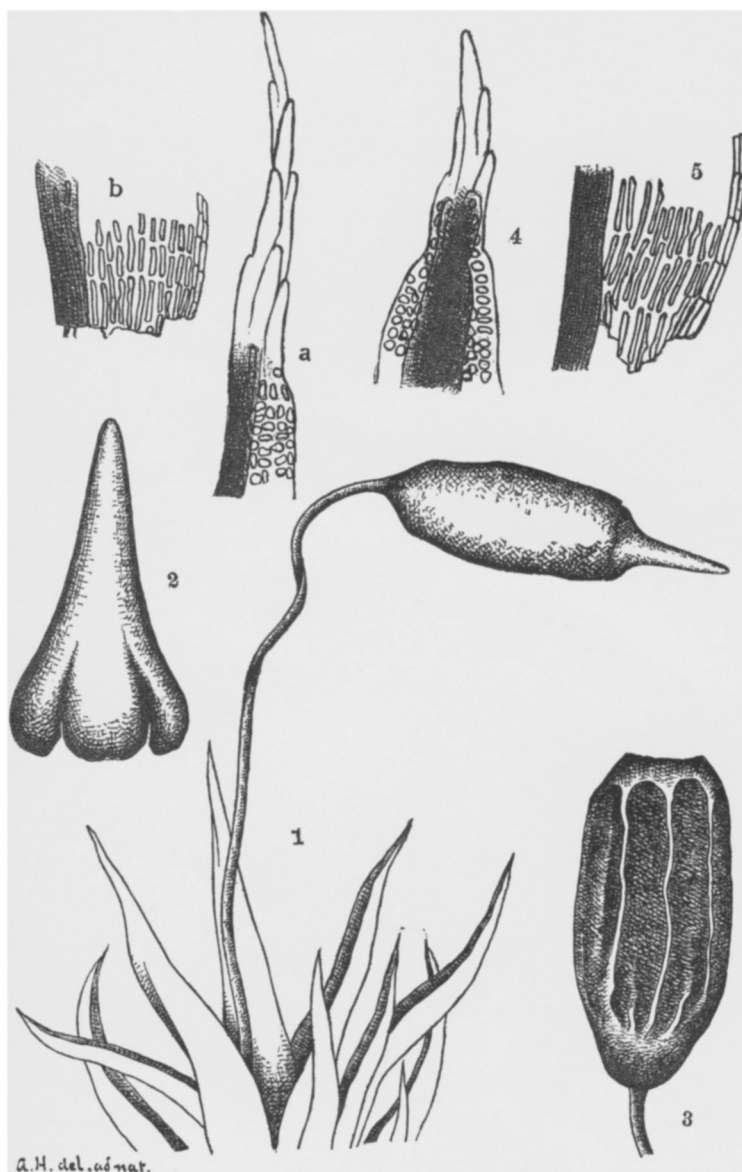
Botanical Notes.

The *Botanical Society of Western Pennsylvania* is the name of an organization established last October at Pittsburgh, "to bring into communication those who are interested in Botany, to advance their knowledge of the subject, and to create a more wide-spread interest in the study of plants," in which praiseworthy objects the editors of the BULLETIN wish the officers of the new society the greatest success. Meetings are held monthly, the fourth Thursday in every month, at the Pittsburgh Library. From the calendar of the society recently received we learn that the officers for 1888-'89, are as follows: President, Dr. Wm. R. Hamilton; Vice-president, Dr. A. Ziegler; Corresponding Secretary, Mr. J. D. Shafer; Recording Secretary, Miss Willa Z. Matthews; Treasurer, Mr. C. C. Mellor. Over 50 members are now enrolled.

Heterogamy in Alnus serrulata. Passing along a road fringed with *Alnus serrulata* near Yonkers, New York, the other day, I was interested to note that one clump had no staminate catkins, and that the pistillate ones were much more numerous than in the normal monoecious type. A day or so later, other plants showing the same peculiarity were observed in another locality. These were marked so that they might be watched next season. This entire absence of staminate catkins seems to show a tendency on the part of *Alnus* to become dioecious. I could, however, find no plants producing only male catkins, and am interested to know whether any such have been observed by others, and whether the peculiarity noted by me has been common elsewhere this spring.

Alice B. Rich.

[Androgynous catkins are recorded for this species from



Grimmia torquata, Hornsch.